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Fire Prevention and the War

U.S. Forest Service for California

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Fire Prevention and the War

ISSUED BY THE

UNITED STATES FOREST SERVICE
for California

ENDORSED AS A WAR MEASURE BY

United States Food Administration for California

University of California

E. H. Hyatt, State Department of Education

Forest Industries Committee of California

Fire Prevention Bureau of the Pacific

“Preventable fire is more than a private misfortune. It is a public dereliction. At a time like this of emergency and manifest necessity for the conservation of national resources, it is more than ever a matter of deep and pressing consequence that every means should be taken to prevent this evil.”

WOODROW WILSON.

TO SCHOOL TEACHERS

The following information may be used in connection with the five-minute Monday talks authorized by Governor Stephens.

How does fire affect the war? By burning wheat and other crops, by destroying warehouses and storage facilities, timber and lumber needed for aeroplanes, army cantonments, boxes for the shipment of supplies to France, and by the reduction of the supply of wood for fuel. Fire also means an economic loss of labor at the very time when labor is a big factor in winning the war.

Why observe the wheatless day if our grain fields and warehouses are to be destroyed by fire? Why have a meatless day if cattle and sheep are starving because fires have destroyed hay crops, pasture, and summer range? Why cut timber for aeroplanes, ships, and cantonments, if fires destroy the logs and the lumber? We must do more than economize in the use of bread, sugar, meat and other foods; more than increase production in our sawmills, munition plants and ship yards; we must be careful with fire, and we must see that others are careful.

In California, in 1917, thousands of acres of grain were burned by fires carelessly started in the harvest fields, or by lack of proper precautions with harvesters and engines. Thousands of acres of National Forest timberlands were seriously injured thru carelessness with fire.

Teachers will be rendering a patriotic service by instructing their pupils in the terrible losses by fire, the ways that fires start, and how they may be prevented.

It should be pointed out to the students that not only is there an immense loss in food materials and other materials needed in winning the war, but that fires must be fought, and that the fighting takes great amounts of labor that should be producing food, ships, guns, and aeroplanes.

Voluntary cooperation in the fire prevention campaign now under way, from teachers and students, is absolutely essential to its success. And the success of the campaign is one of the factors that will decide the question of victory.

TALK 1 — FIRE

Most of our timber loss in California is caused by camp fires which are not thoroughly put out; by fires started to clear land, but which get beyond control; by matches and cigarettes which are thrown away before they are put out; and by wood-burning donkey engines used in logging which do not use proper spark arrestors. Then, too, many fires are purposely set by the man who has a grudge against his neighbor; by the man who wants to see the country burn, or who

wants to clear out a brush patch, and who doesn't care what damage the fire will do. All these fires are preventable. Lightning causes many fires which cannot be prevented; but they can be stopped before much damage is done if everybody is alive to their seriousness.

Fires in the grain fields are often started by matches or cigarettes carelessly thrown to one side, but they start, too, from traction engines improperly equipped to guard against fires. The makers of all such engines now have the proper safeguards; they are inexpensive, and their use may save thousands of pounds of wheat for our Army in France. Let us see that they are used. If you want to know about them, ask your Farm Advisor, or write to the University of California at Berkeley, California.

We are using our forests in the United States much faster than they are growing. This means that we will have to restrict the use of wood, or run short in time. In France, where our soldiers are to-day, in order not to waste chips, the trees are not chopped down, but sawed; all limbs are gathered up and used for fire wood. In some countries a small tree is planted each time a big one is cut.

Save food, timber, forests and feed; they are all needed to help win the war. You can do your part if you will Preach and Practice care with fire.

TALK 2—CAMP FIRES

The original forest stand in the United States was one billion acres. This is more than ten times the size of California. One-half of this timber has disappeared since the Pilgrim Fathers landed at Plymouth Rock. One-sixth of our original timber supply has been destroyed by forest fires. This means a forest area $1\frac{2}{5}$ times the size of California burned in fire.

We cannot afford to let the forests burn. Lumber is needed to build cantonments for the soldiers, aeroplanes for use in fighting, and ships in which to transport both to Europe.

The cities and towns of France and Belgium which have been so ruthlessly destroyed by the Germans will have to be rebuilt from lumber. California must supply a large part of the lumber needed; Europe cannot supply it. By protecting our forests from fire, you are aiding the homeless people of France.

At least one-fourth of the fires in California are caused by careless campers. Campers start fires by:

- (a) Leaving their camp fires before they are out. The man who knows the game pours water on his fire and then buries it with earth. All good campers teach beginners this.
- (b) We should also see that the camp fires built in our camps this summer are small; small fires are much better to cook with; even bonfires need not be large. Remember the old Indian who said, "White man make big fire; sit way back; Indian make little fire; sit close."

It is important that fire warning signals be posted in the woods and about sawmills. Signs calling attention to the need for care with fire can be obtained from the State Forester at Sacramento, the U. S. Forest Service, San Francisco, and from all County Farm Advisors.

In California, in 1917, 252 fires outside of the National Forests burned over 248,000 acres and caused a loss of \$375,000.

TALK 9—FOREST FIRES AND THE LABOR PROBLEM

California has sent large numbers of men to our Army within the past few months, and many more are going each month. The Government needs others for aeroplane construction, for work in munition factories, and in the ship-building industries. All these calls mean a big drain on labor used in the most important industry in our State today—Agriculture, or the production of food-stuffs. This is particularly true of the mountainous counties of the State, where labor is often inadequate even in normal conditions, and from which the drain on labor has been, and will be, most serious. Recent discussions as to the necessity and advisability of importing Chinese agricultural labor for California would indicate the seriousness of this situation.

In speaking of preventable fires in connection with the war, President Wilson says:

“Preventable fire is more than a private misfortune; it is a public dereliction. At a time like this of emergency and manifest necessity for the conservation of national resources, it is more than ever a matter of deep and pressing consequence that every means should be taken to prevent this evil.”

This is significant when we remember that California had, in 1917, and within the National Forests, over 1000 such fires. These fires were bad enough in that they destroyed over \$150,000 worth of property; and that property included timber, range for cattle and sheep, ranch products, etc., all necessities in so far as our big job of winning the war is concerned.

The resources of the Forests must be protected from fire, and yet it took, in California last year, 1600 man months, or the equivalent of 400 men working every day for four months, to put out these preventable or man-caused fires.

Remember that the National Forests are located in the mountainous counties; that these counties do not have a big surplus of agricultural labor even in normal times; and that under present conditions the labor supply is unusually short. Isn't it worth while to keep our own labor on the ranch, instead of working on such unproductive labor as fighting fire?

By being careful with fire, and by seeing that your neighbors and friends are careful with fire, you will be helping directly to win the war. DO IT.

(c) Camp fires should never be built against the base of trees or rotten logs.

The needles and leaves on the ground should be raked aside down to the bare ground before the fire is started. Fire will run quickly through matted pine needles.

TALK 3—FIRE IN GRAIN FIELDS

Food is as necessary to the winning of the war as men and guns; 40,000,000 men have been taken from the farms of Europe; we must send them and their families food to keep them alive and strong.

Thousands of bushels of grain are burned every year. Over a billion loaves of bread, it was estimated in 1917, were destroyed by fire in the field, warehouse and mills. Fires start in the fields usually through:

- (a) Carelessness of smokers with tobacco and matches. Employees on harvesting crews should not be allowed to smoke around grain warehouses or barns. In the field, smoking should not be done except within ten feet of the engine.
- (b) From exhaust of gasoline tractors and smoke stacks of steam engines. This can be prevented by use of spark arrestors and devices for muffling gas engines. As a precautionary measure, each crew should be provided with wet sacks, fire extinguishers and buckets of water.
- (c) From hot boxes in machinery and spontaneous combustion of dust in separators. If machinery is well oiled and kept in repair and kept clean, this danger is eliminated to a large extent.

One way to keep fire from doing much damage in fields is to plow a strip 12 ft. wide about the stacked grain after threshing, and to have strips plowed about the fields in order that fire may not be spread. Another way is to be sure that all traction engines have a good spark arrestor. Every rancher should consult his Farm Advisor and County Council of Defense for information along these lines.

TALK 4—CLEARING LAND

Brush burning. In the wooded regions of the State a great many disastrous fires occur every year because ranchers and land owners choose the summer months in which to clear land and burn brush. Brush should never be burned in the dry weather; after the fall rains is the best time. Brush should never be burned when there is a heavy wind.

Clearing away brush from farming land, in order that grain and fruits may be planted, is necessary, but the value of this increase in food production should not be offset by fires that injure the watersheds through erosion; that kill the little trees, or that cause great loss to timber, forage and ranch property itself.

Brush burners should always secure a permit for burning, from the nearest fire warden, or notify a Forest Ranger if near a National Forest. Unless this is

TALK 7—FIRE HAZARD IN THE HOMES AND SCHOOLS

Precautions are necessary to prevent the destruction of houses and other buildings at this time, as a means of winning the war. The country cannot spare the labor and materials needed to replace the buildings destroyed by fire.

Fires that destroy buildings usually result from these causes:

A—Spontaneous combustion occurring in piles of oily rags, old clothes, painters' jumpers, overalls, etc. Rags soaked in linseed oil, or in paints, and varnishes containing this oil are most dangerous. Charcoal, hay, hemp and lime are also liable to spontaneous combustion.

B—Matches. Children never should be allowed to play with matches. They should be kept out of their reach in metal or china receptacles. The best kind to use are the safety matches which cannot be ignited except on the box they come in.

C—Defective stoves:

1. Too close to woodwork.
2. Overheated.
3. Defective stove pipes and chimney.
4. Sparks from chimney in moss-covered shingled roof.
5. Ashes containing fire thrown outside.

D—Rubbish. Rubbish should never be allowed to accumulate about the house. Many a home has been destroyed because of the trash in the basement or attic. Old paper and rags should be taken away as fast as they accumulate, and put in metal cans. In the spring or fall they should be burned in bonfires. A safe way of building a bonfire is to build it in a hole in the ground.

E—Electric irons cause many fires. Be sure the current is switched off before leaving the iron even for a minute.

Every home should be provided with some form of fire protection, such as fire extinguishers, hose, or buckets and barrels always filled with water.

TALK 8—LUMBERING

Forests protected from fire mean plenty of work in logging camps and mills, cheap lumber and other wood products, and large pay rolls. Forest fires mean no productive work in the woods, and high prices for our buildings, fences, fruit boxes, and fuel.

A great many fires start from donkey engines, logging railroads, sawmill engines, blasting, hoisting engines, carelessness of crews with tobacco and matches.

Fires of this sort can be prevented largely by railroads clearing the land on both sides of the track, by placing screens, called "spark arrestors," over the smoke stacks and exhausts of engines, by wetting down piles of sawdust and slabwood, and by care with matches.

The laws of California compel the placing of spark arrestors on all logging engines. It is the duty of everyone to report violations of this law to the fire wardens and forest rangers.

done, the Ranger and fire warden have no way of knowing whether or not the fire is controlled. Besides, should a brush burner, through negligence, allow his fire to escape to another's property, he is liable under the laws of California to fine and imprisonment, and for damages. The fact that the brush burner first notified the warden and secured a permit is in his favor.

The law requires that precautions shall be taken by brush burners. Some of these precautions are:

- (a) A sufficient number of men at hand to control the brush fires.
- (b) A sufficient quantity of tools—axes, shovels, hoes, etc.—to arm any number of fire fighters that might be needed.
- (c) Careful watching of the burning piles, day and night, until the last spark is out.

TALK 5—THE FOREST FIRE

Timber is a necessity in the construction of ships to transport men and supplies to the trenches in France. It is essential in the construction of aeroplanes. An enormous amount of California pine is needed each year for boxes in which to pack our fruits and other food supplies for the use of the fighting armies and the civil population of France, England, and Belgium. In order that it may be used, our timber supply must be protected from fires.

To save the big timber and the small trees which are to make the big timber of to-morrow, it was necessary during 1917 to fight 1862 fires within the National Forests of our State. Lightning started many of these fires, but 1011 of them, or 54 per cent of the total number, were started by people living in or using the Forests.

How did they start? Largely through carelessness in throwing away a match before it was out, tossing lighted cigars or cigarettes from trains or automobiles, building bonfires in or near dead logs and trees, and leaving camp fires before putting them out with water and covering them with fresh earth.

These fires, all of which were preventable, caused damage to timber, range, ranch and other property within the State estimated at more than \$150,000.00.

How to prevent them:

Every time you go camping, whether it is for a day's picnic or a week's fishing trip, see that the following Six Rules for the Prevention of Fire in the mountains are observed:

1. Matches—

Be sure your match is out before you throw it away. Matches whose heads glow after the flame is out are dangerous.

2. Tobacco—

Throw pipe ashes and cigar or cigarette stumps in the dust of the road, and stamp or pinch out the fire before leaving them. Don't throw them into brush, leaves or needles.

3. Making Camp—

Build a small camp fire. Build it in the open, not against a tree or log, nor within 15 feet of standing brush. Scrape away the trash from all around it.

4. Leaving Camp—

Never leave a camp fire, even for a short time, without quenching it with water and then covering it with earth.

5. Bonfires—

Bonfires are not permitted on the National Forests.

6. Fighting Fires—

If you find a fire, try to put it out. If you can't, get word of it to the nearest U. S. Forest Ranger or State Fire Warden at once. Keep in touch with the rangers.

Always ask your parents and friends to be careful with fire. By doing this you will be doing your bit towards saving things which are needed both here and in France to help win the war.

TALK 6—INCENDIARY FIRES

Unfortunately, though we are at war and need every sack of grain, acre of forage and hour of labor to provide food for our armies and Allies, there are people in California so unpatriotic as to purposely set fires. Some set fires to clear off brush in order, as they think, to make better stock grazing; others to make hunting easier; to open trails; prospectors, to uncover minerals. Others, enemies of our country, set fires to hamper us in the prosecution of the war.

Do you know that when mountain brush lands are burned over the brush comes back thicker than before? Next time you are in the mountains, notice how much thinner the brush is under the trees than it is where there are no trees. Then remember that the little trees which are killed by fire will grow and thin out the brush if fires are kept out of the mountains. After that has happened, the land can be used both for timber and for grazing. Thousands of acres in Northern California that used to be in forest and good grazing lands are now worthless brush fields because of continuous fires.

Remember that trails can be brushed out with an axe, without danger of fire, and that trees will thin out the brush much better than fires will do it. It is better to spend more time in prospecting for minerals than it is to burn thousands of acres. We all know that it is only through children that the human race can be continued. We guard carefully against many children's diseases because they are much more fatal to children than to adults. So, too, we must guard against forest fires, because they are fatal to the small trees—in fact, much more fatal than to the big ones.

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Fire Prevention

Form 172

